

For: A Multi-Rate, Multi-Port, Gigabit Serdes Transceiver 300 Serial data is received at a first serial port 302 of a plurality of adjacent serial ports 304 Convert the serial data to parallel data Route the parallel data from one adjacent port to 306 another adjacent port until a destination port is reached Convert the parallel data back to serial

308

310

Replacement Sheet Sheet 1 of 2

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FIG. 3

data at the destination port

Transmit the serial data from the destination port



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1500 Receive a serial differential signal 1502 Convert the serial differential signal to a 1504 parallel differential data word Examine the parallel data word to determine if it is a valid 1506 data word in the corresponding communications system If the parallel differential data word is found to 1508 be invalid, then invert the parallel data word Re-examine the parallel differential data word to determine if it is now a valid data word, and if so the 1510

FIG. 15

inverted parallel data word can be further processed (e.g. serialized an re-transmitted)